

## Meet the Arthropods!

Tarantulas, cockroaches, and millipedes, oh my! These “creepy” crawly animals are often characterized as gross, scary, or straight up “eww,” but they all have unique traits and play an important role in their wild ecosystems. Meet FCMoD’s arthropods and become an entomologist in your own backyard!

### What are arthropods?

Arthropods are characterized as invertebrate animals, meaning they don’t have a spine but they do have an exoskeleton. Their body is segmented by a head, thorax and abdomen. Insects, arachnids (spider species), myriapods (millipedes and centipedes) and crustaceans (crabs, lobsters, shrimp) are all part of the arthropod (*Arthropoda*) phylum.

At FCMoD we care for a variety of arthropods such as the Madagascar Hissing Cockroaches, Whip Scorpion, Assassin Bugs, and many more! Check out some of their individual life histories!

#### **Chilean Rose Tarantula (*Grammostola rosea*)**

Habitat: Lives in Chile, Bolivia, and Argentina in scrubland or deserts.

Web: Like other spiders, tarantulas spin webs, but they don’t use them to catch prey. The web is used as protection while they sleep.

Setae: These spiders are known for their pink, orange, or red hairs called setae, a sensory organ like a cat’s whiskers. Setae on the abdomen have sharp tips with barbs on the end and are used as a defense mechanism when they feel threatened. These hairs can get under skin and become very itchy.



## **African Giant Black Millipede (*Archispirostreptus gigas*)**

Species: What are the differences between millipedes and centipedes? Centipedes are brightly colored and have fewer legs on the side of their body, while millipedes are the color of dirt and soil with legs underneath their body.

Habitat: These millipedes are native to parts of Africa in the southeastern lowlands. Since they are scavengers and decomposers, they love to live in forests with lots of rotting leaves.

Predators: To protect itself from predators, a millipede will curl up into a tight spiral.



## **Blue Death Feigning Beetle (*Asbolus verrocusus*)**

Habitat Range: These beetles live in desert ranges throughout the southwestern United States.

Diet: These beetles eat plants, seeds, and decomposing materials; they are nature's decomposers.

Coloration: The blue coloration comes from a secretion that helps the beetles retain moisture in their hot habitats.

Adaptations: When threatened, they roll over to play dead for a few moments as a defense mechanism. Their predators often prefer live prey.



## Observations in the Backyard!

Whether it is in your backyard, neighborhood or at a Natural Area, animals can be observed just about anywhere! Entomologists are scientists who study all types of insects. They study and observe these animals in the wild to learn about their behaviors and identify their role within the ecosystem. You can be a backyard entomologist to observe similar animals as the museum's arthropods and record what you discover!

Many arthropods are decomposers, which means they break down organic material, flesh of dead animals, poop, rotting leaves and other foliage. This process provides nutrients to the soil which is essential for plants to grow. Without this process, the organic material and waste would pile up and take longer to decompose.

## Supplies:

- Writing utensil
- Paper
- Computer and internet access (optional)

## Instructions:

1. If you created an observational chart, write down your animal observations in the “explore your world” section. If not, create your own observational chart, using the provided guiding questions.
2. Head out to your backyard or take a walk to explore some of the smallest animals that live near you. Check under rocks, in the grass and even in the trees.
3. Check out this BBC Earth video: <https://www.youtube.com/watch?v=2WBIn5ID42Y&feature=youtu.be> and see how the Garden Orb Weave spider weaves their web.

## Guiding Questions:

<b>Location and Habitat</b>  <i>Where did you see this animal? What does it's habitat look like?</i>	<b>Physical Characteristics</b>  <i>What does this animal look like, is it small or large? Furry or Scaly?</i>	<b>Diet</b>  <i>Did you see the animal eat? If so what did it eat? If not, what do you think it eats, and why?</i>
<b>Locomotion</b>  <i>How did the animal move? Does it walk, fly or swim? How many legs did it have? Is it fast or slow?</i>	<b>Vocalization</b>  <i>Did the animal make any noises? What did they sound like? Why do you think they made those noises?</i>	<b>Other Behaviors</b>  <i>What was the animal doing when you observed it? Did it hang around other animals? What types of adaptations does the animal have?</i>